

Abstract

A method and a suitable device for carrying out this method is proposed, for etching a substrate (10), especially a silicon element, with the aid of an inductively coupled plasma (14). For this purpose, a high frequency electromagnetic alternating field is generated, which produces an inductively coupled plasma (14) from reactive particles in a reactor (15). In this connection, the inductively coupled plasma (14) comes about by the action of the high frequency electromagnetic alternating field upon a reactive gas. Furthermore, a device, in particular a magnetic field coil (21) is provided which produces a static or timewise varying magnetic field between the substrate (10) and the ICP source (13). For this, the magnetic field is oriented in such a way that its direction is at least approximately or predominantly parallel to the direction defined by the line connecting the substrate (10) and the inductively coupled plasma (14).

Figure 1